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AUTHOR Wilson, Christopher F.; Faddis, Bonnie J.
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ABSTRACT

This handbook provides a model or process for examining the impact of a community school. Specifically, it provides a step-by-step guide to assessing impact by looking at voting, public opinion, attendance, and vandalism data. Other potential indexes of impact are also discussed. The steps involved in conducting an impact evaluation are similar to those used in any evaluation model: (1) development of evaluation questions, (2) selection of data collection methods and design, (3) data summary and analyses, and (4) reporting of results. Each of these steps is described in detail in the first chapter of this six-chapter handbook. Following this section are four chapters on specific data collection and analysis methods for four areas of impact evaluation: voting patterns on school-related issues, polling public opinion, attendance/absenteeism patterns, and school vandalism. The final chapter of the handbook discusses other types of impact questions with suggestions for data collection methods and evaluation designs. Facing each page of the text is a page for notes. (KC)

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A HANDBOOK FOR IMPACT EVALUATION OF COMMUNITY EDUCATION

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Prepared by

Christopher F. Wilson, Ph.D.
Evaluation Coordinator

Bonnie J. Faddis, Ph.D.
Research Specialist
Northwest Regional Educational Laboratory

SAN DIEGO COUNTY OFFICE OF EDUCATION
Planning, Research and Evaluation
6401 Linda Vista Road, San Diego CA 92111-7399
Carole J. Teall, Ed.D., Director
(619) 292-3637

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FOREWORD

Community education has been recognized for some time now as an important enhancement to a school's effectiveness. Since funding for education has been drastically cut, the need to reinforce this positive effect has become an important element in the effort to continue financial support for the community education concept. Recognizing this need, our Planning, Research, and Evaluation Section has developed an easy-to-use impact evaluation handbook for schools. Our office, with funding assistance from the Mott Foundation, is now disseminating this handbook in support of the continuing community education effort.

Gerald A. Rosander
Superintendent
San Diego County Office of Education
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INTRODUCTION

In recent years, as funds for educational programs have become scarce, the need for program accountability has increased. In community education there is a continuing need to demonstrate that the results of the program justify the expenditures. Conscientious evaluation of the process, outcomes, and impact of community education programs has become more critical in ensuring accurate information for the planning and implementation of high quality programs.

The evaluation of a community school program may include multiple emphases. Impact evaluation is the process of gathering evidence of the long-term effects of a program. It can be contrasted with implementation evaluation, which looks at program components during the implementation of a program, and outcome evaluation which examines the extent to which program goals were met. Impact evaluation attempts to establish a relationship between what is accomplished by program staff and what is achieved by clients. Thus, the focus is on program participants.

The purpose of this handbook is to provide a model or process for examining the impact of a community school. Specifically, it will provide a step-by-step guide to assessing impact by looking at voting, public opinion, attendance, and vandalism data. Other potential indices of impact are also discussed.

The steps involved in conducting an impact evaluation are similar to those used in any evaluation model:

- Development of evaluation questions
- Selection of data collection methods and design
- Data summary and analysis
- Reporting of results

Each step is illustrated in the flowchart on page 3 and described in detail in the next chapter.

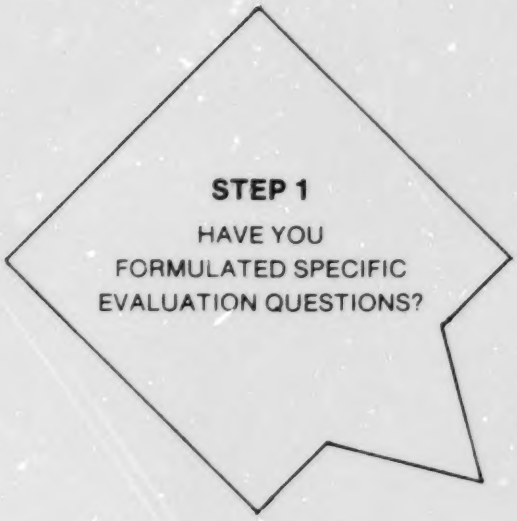
Following the chapter on the general evaluation process are four chapters on specific data collection and analysis methods for four areas of impact evaluation:

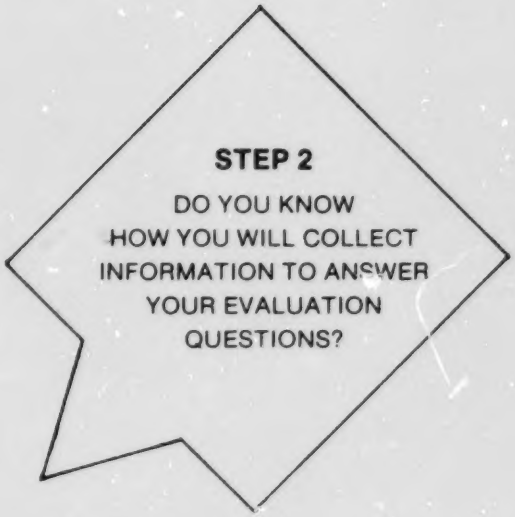
Notes:

- Voting patterns on school-related issues
- Polling public opinion
- Attendance/absenteeism patterns
- School vandalism

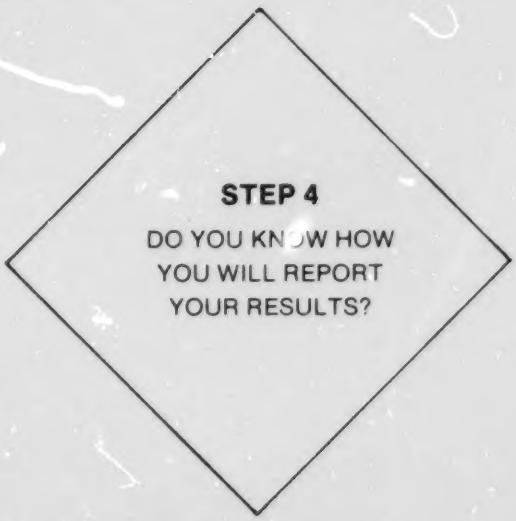
The final chapter of this handbook discusses other types of impact questions with suggestions for data collection methods and evaluation designs.

Notes:


STEP 1
HAVE YOU FORMULATED SPECIFIC EVALUATION QUESTIONS?


STEP 2
DO YOU KNOW HOW YOU WILL COLLECT INFORMATION TO ANSWER YOUR EVALUATION QUESTIONS?

STEP 3
DO YOU KNOW HOW YOU WILL SUMMARIZE AND ANALYZE INFORMATION AFTER IT IS COLLECTED?


STEP 4
DO YOU KNOW HOW YOU WILL REPORT YOUR RESULTS?

THE EVALUATION PROCESS

Development of Evaluation Questions

Before you can begin to write your evaluation questions you need to have a clear idea of what you want to evaluate. Most community schools don't have the time and money to do a full-scale comprehensive evaluation, so you will need to limit your evaluation to those aspects of the project that are most important. You might want to sort your evaluation questions into the three categories of implementation, outcome and impact questions. Some examples of each type of question are:

Implementation:

1. To what extent do program objectives address identified community needs?
2. To what extent is interagency cooperation occurring as planned?
3. Is publicity for community school classes and activities reaching all community groups?
4. To what extent are school facilities utilized outside of regular school hours?

Outcome:

1. Are community members satisfied with course content and instructors?
2. Is the level of participation in cultural, educational and recreational activities consistent with program goals?
3. Does the advisory council participation level meet program goals?
4. Has parent participation in school programs increased as a result of community school activities?

Impact:

1. Do voting patterns on school-related issues differ for community and non-community schools?
2. Does the rate and extent of vandalism differ for community schools and comparable non-community schools?
3. Does student attendance at community schools differ from student attendance at comparable non-community schools?
4. Does student achievement at community schools differ from student achievement at non-community schools?

The key to writing good evaluation questions is to make sure they are clearly stated. Each question should be specific enough that it addresses only one issue. And, if the question is to be useful in providing information for program changes of improvements, it should be relevant to those who make program decisions. A well-formulated evaluation question will lead naturally into the next step in evaluation—selecting the appropriate evaluation design and data collection methods.

Use the following evaluation question worksheets to develop your own questions. The suggestions listed above may help you in this process.

WRITING EVALUATION QUESTIONS WORKSHEET

Description of Program Component

Implementation Questions **Priority**

Outcome Questions

Impact Questions

Determining Priorities

Once you have generated some evaluation questions you will need to decide which questions have the highest priority. It is unlikely that you will have the time or the resources to collect and analyze information to answer all questions of interest.

One way to determine priorities is to think about possible outcomes to your question, and what decisions might result from each outcome. For instance, if your question pertained to attendance at community vs. non-community schools, you might find that (a) there is no difference, (b) community schools have better student attendance than non-community schools, or (c) non-community schools have better attendance than community schools.

For each of these three possible outcomes think about what kinds of decisions might be made if that was the result you obtained. For instance, if you found there was no difference in attendance, you might decide to implement a special attendance campaign through your community school to encourage better attendance. Or, if your community school did show a higher attendance record than non-community schools, you might decide to collect additional information so you could find out what specific factors contributed to better attendance.

Next, for each possible decision you have listed, consider how feasible it would be to implement that decision. Some feasibility factors to consider are:

1. **Benefit** — How much benefit would accrue from taking this action?
2. **Practicality** — Is it practical to implement this decision in our situation?
3. **Acceptance** — Will the people affected by this decision accept it?
4. **Resources** — Do we have the staffing, materials, funding or other resources to carry out this decision?
5. **Politics** — Could this decision be implemented in the present political situation?

Based on these considerations, you may find that some questions may result in unfeasible decisions. Thus, you may want to eliminate those questions or assign them to lower priorities.

Selection of Data Collection Methods and Evaluation Design

Collecting evaluation information can be a costly experience, both in terms of time and money. To avoid wasting either, and to avoid ending up with useless information that doesn't really answer your evaluation questions, you need to plan carefully.

One tool for planning is the Evaluation Information Requirements Worksheet on the next page. You may wish to take the evaluation questions you developed in Step One and write them on this worksheet. Planning for who needs what information, when it is needed and why it is needed will help you to provide information in a timely way.

In evaluation requirements the decision makers should identify all evaluation resources and constraints that may exist to be certain that all information requirements can be met.

Identifying preliminary evaluation resources and constraints should be performed during the early phase of evaluation planning. This phase should indicate to decision makers the resources that they currently have available to them to conduct the evaluation. These may include:

1. The amount of money budgeted for the evaluation—which may be both a resource and a constraint;
2. The amount of personnel time available for data collection and record keeping;
3. The services available from other agencies, e.g., district, county, etc;
4. The instruments currently being administered that can provide some of the required data.

EVALUATION INFORMATION REQUIREMENTS WORKSHEET

(Sample)

Who Requires Information?	What Information Is Required?	Date	Use to Be Made of Information
Dr. Carol Bishop, Community School Principal	Do voting patterns on school-related issues differ for our school and non-community schools?	October 1	To determine whether we need to make a special appeal to our community before the next school election
	To what extent do program objectives address identified community needs?	March 1	To plan community school program activities for the coming year
	Are community members satisfied with community school courses and instructors?	March 1	(Same as above)

EVALUATION INFORMATION REQUIREMENTS WORKSHEET

Who Requires Information?	What Information Is Required?	Date	Use to Be Made of Information

Later in the planning period, when the evaluation plans and procedures are determined, specific requirements will be identified. A match/mismatch between what resources are available and what are required can be made. If discrepancies do exist, the project director and staff will be in a position to determine how the discrepancy may be best handled.

You will probably be gathering information from more than one source to answer your evaluation questions. You may want to look at existing records, such as logs of phone calls with other community agencies, lists of activities offered through the community school program, or voting data on school-related issues. It may be appropriate to distribute questionnaires to the community at large, or to participants in community school activities. You may want to conduct interviews with advisory council members, community school staff, or representatives from various community groups. Or, you may want to make observations at community school planning meetings or activities. You may use several sources and methods of gathering information or only one. It all depends on your evaluation question and the resources you have for gathering information to answer your question. Some methods are less expensive to use, and some methods tend to produce more reliable information than others. The advantages and disadvantages of the four methods are discussed on the following pages.

Questionnaire

Definition:

- Presents each subject with the same information and requires some type of written response. Responses are written or pictured choices. Format may be open-ended allowing subject to write his/her own response, or closed format, requiring subject to select only from response choices provided.

Advantages:

- Can be administered to all subjects at once.
- Can be mailed (thus requiring less administration time).
- Respondents can answer on their own time.
- Respondents can remain anonymous.
- Responses will be relatively uniform.
- Data are relatively objective, and can be summarized and interpreted statistically.

Disadvantages:

- Respondent has little or no opportunity to get clarification of questionnaire items.
- Responses depend on written skills and reading comprehension. If respondent has difficulty in reading or writing, answers may not be reliable or valid.
- There is little or no opportunity to pursue interesting items of areas.
- More impersonal than an interview.
- Low rate of returns if mailed. Usually requires follow-up mailing. Data may be biased because of low return.

Interview

Definition:

- Oral administration of questionnaire items and oral response. Interviewer asks questions, takes notes, and asks for amplification or clarification. Notes on responses are later summarized.

Advantages:

- Questions that are hard to phrase in writing may be easier to express and explain orally.
- Eliminates dependence on respondent's writing and reading skills.
- Allows for establishment of rapport between interviewer and respondent. May increase honesty and depth of answers.
- Interviewer can get information from voice inflections and nonverbal cues. Relates to values, attitudes, how strongly one "feels" about an issue.
- Respondent can pursue responses until they are clear and complete.
- Flexibility to rephrase questions, ask for clarification and meaning.
- Rate of return is not an issue. Don't need follow-ups on missing data.

Disadvantages:

- Reliance on interviewer's interpersonal skills and communication ability. Interviewer must be a good communicator, non-threatening, non-judgmental.
- Interviewer must be consistent and not distort meanings of connotations due to flexibility of expression.
- Interviewers must be trained.
- Interviewer biases may alter subject's responses.
- Training interviewer(s) and collecting data is expensive and time-consuming.
- Sample sizes will be smaller because of time and money costs.

Observation

Definition:

- Watching what is going on at a certain time, and systematically coding or recording information about what is being observed.

Advantages:

- Gives relatively accurate accounts of actual occurrences.
- Does not rely on observers' recall ability.
- Yields factual (objective) data; does not rely on observers' judgments.
- Observers' values, attitudes, personal biases are not an issue.
- Can be used in a variety of settings and with various sample sizes.

Disadvantages:

- Subjects' behaviors/actions may be altered because of the presence of an observer.
- Observer may interpret/perceive behavior differently from those involved.
- Observers must be trained.
- Inter-observer reliability: Not only must observers be trained, they must be fairly consistent among themselves.
- Training observers and collecting data is extensive and time-consuming.
- Sample sizes will be smaller because of time and money costs.

Existing Records

Definition:

- Collecting information from records that have already been compiled in some manner by others.

Advantages:

- Wide variety of information is readily available.
- Objective, unbiased information is obtained.
- Relatively low cost is required to get information.
- Does not require professional staff to get information.
- Data can be collected by someone not highly trained.

Disadvantages:

- Records may be incomplete.
- May take time and effort to extract necessary information.
- Legal requirements (e.g., permission) may arise.
- Record keeping may be extra work for those who have to do it.

The evaluation design is a plan for collecting the information you need. It consists of the information sources and methods you have identified for each evaluation question, along with plans for who will collect the information, and when. Proper timing of information collection

activities can affect your results. Sending out questionnaires around Christmas time may yield fewer responses. Attempts to review existing records during summer months may be difficult if offices are closed or key personnel are on vacation.

The data collection planning worksheet on the next page will help you organize your information collection activities and timelines.

DATA COLLECTION PLANNING WORKSHEET

Evaluation Question	Source of Data	Method	Who Will Administer	When It Will Be Administered

Data Summary and Analysis

Once you have collected information according to your plan, you need to reduce the data into a form that is concise but that doesn't sacrifice important detail. Below are some hints for summarizing information collected from each of the four methods discussed earlier.

Questionnaires

You may have used items on your questionnaires that required closed responses, which are structured answers that can be tallied, coded or categorized. A closed response only allows a person to circle or check an answer. Responses such as "yes," "no" and numerical values are examples of closed responses.

These answers can be tabulated on a tally sheet or by computer if you have access to one. For hand-tabulation the tally sheet can follow the same format as the questionnaire. After you have finished tallying your responses you can present the results in totals by adding the tally marks. You can also convert the numbers to percentages.

Example

Questionnaire Tally Sheet

	Yes	No	Uncertain
1. Does the community school offer activities that are of interest to you or your family?	IIII II	II	I
	70%	20%	10%

Open-ended items can be tallied using a special form. In one column, on a sheet of paper, write a short summary of the first response given and place a tally mark next to it. Each time a similar response is given in subsequent questionnaires place another tally mark next to it. When a unique response is given summarize and tally it.

Example

Question: How could the community school better serve your needs?

1. Offer more craft classes. IIII
2. Provide child care during evening activities. IIII I
3. Have more social activities for the entire family. III

After all responses have been tallied, summarize the statements that were mentioned most frequently. If there were a lot of unique responses you may want to group them into categories so your summary is more concise.

If you are evaluating more than one group you may want to summarize the results separately for each group. This can give you important and more specific information about each group. You can still add the separate tallies if you want to calculate totals for your whole group.

Interviews

If the interview is structured and uses closed responses you can tally them as you would closed-response questionnaire items. If the interview allows open responses list the responses and tally them as you would questionnaire open responses. After you have tallied all answers you can write a summary of all the responses to each question.

Observations

Information collected by observation can be tallied as you would a questionnaire. If you used more than one observer, as a check for consistency you may wish to report the inter-rater reliability or correlation between the two sets of observations. (Methods for calculating this are described in many measurement textbooks).

Existing Records

Information extracted from existing files, such as records of student progress, attendance reports or vandalism records, can be collected in a form that transfers easily to a tally sheet (see example). You can derive totals, percentages and group averages from tallies.

The type of record you are looking at, and the specific information you wish to extract from it, will determine the design of your data collection form. Some examples of forms to collect data from existing records are included in later sections of this handbook.

Once you have summarized your data you need to decide how you want to present your information. A major consideration in choosing analyses is the audience for the report. Sophisticated statistical analyses may not be understood by lay audiences. You can either describe your results or make comparisons.

Descriptive data include:

a. **Average response,** or mean response to an item. In some cases it might be appropriate to include the median (middle response) or the mode (the most frequent response).

b. **Range of responses,** or the two extremes of the continuum. (Example: The number of Advisory Committee meetings attended ranged from 0 to 8). A more sophisticated but frequently reported measure of variability is the standard deviation. (Example: The average number of Advisory Committee meetings attended was 3.8, with a standard deviation of 1.4.)

c. **Frequency distribution,** or where the responses fell in between the two extremes. Frequency counts and tally marks can give a visual impression of what the distribution looks like—where the middle might be, and if there were bunches of responses in certain places.

d. **Percent of responses** in different categories, or at different intervals along the response continuum.

e. **Correlation** coefficients can be presented to show the degree of relationship between two variables. (More specific information on this topic can be found in introductory statistics or measurement textbooks).

f. **Summaries** of narrative data from interviews, questionnaires or anecdotal records.

Comparative data include such statistical methods as chi square, t-tests, analysis of variance, multiple regression, etc. (Check any statistics book if you need specific information on these methods).

When selecting a method of analysis, the important thing to remember is to present the data so that the audience can understand it.

When you summarize data which are subjective—dependent on the judgments of whomever is doing the analysis—it is important to check summaries, impressions or conclusions. You can do this by reviewing results from observations and interviews with those who supplied the responses. You could also cross-check subjective results with other data which are less subjective (such as records). Discussing the results with those who were observed or interviewed will not only help verify your findings but may help ensure that your conclusions and recommendations will be accepted.

Once you have summarized the information collected, you will need to plan your reporting procedures. The following information describes what you need to know to present an effective report.

State the Purpose

The first step in reporting your results is to define the purpose of your evaluation to your audience. You can do this by stating your evaluation questions, then describing how your data collection and summary methods answer those questions. This will clarify your intentions to your audience.

Your Audience

How you describe and present your findings will depend to a great extent on your audience. Details of the report, the level of language used and the kinds of graphics and charts displayed will vary according to their needs. Those who make major decisions about your program may want more details than others.

Methods of Reporting

You can present your final results in writing, orally, using tables and figure displays or any combination of the above. You may want to develop a communication plan to identify the purposes of communication for each audience. Here are some questions your plan should answer about each audience.

Does your audience set goals or policies?

Does it decide levels of financial support?

Does it plan instructional programs?

What are its responsibilities, relationships with other audiences and time constraints?

What questions does the audience want answered?

What statistics would the audience find meaningful?

After you have an idea of your audience's needs you will be able to better determine how to present the information. Whether you are communicating in writing, orally or graphically, state clearly why you are presenting the information. It also helps to present your information in logical order. To have the greatest amount of impact, present your information in person.

Below is more detailed information about different methods of data presentation.

Written Reports

Reports made during the evaluation process can be written or oral. The final report, however, is more formal and should be written. You may need to design different formats with appropriate displays if you have different audiences. Here is a suggested outline for the final evaluation report:

A. Summary

B. Background

1. Program goals and objectives
2. Description of program
   a. Origins
   b. Participants
   c. Activities and materials
   d. Length of the study
   e. Unique components
   f. Budget

C. Description of evaluation
    1. Focus
    2. Instruments and procedures
D. Evaluation results and conclusions
    1. Objectives met
    2. Objectives unmet
    3. Alternative proposals for improvement
    4. Program effectiveness
    5. Other findings
E. Recommendations
    1. Recommendations for improvement of program
    2. Recommendations for improvement of evaluation

Advantages to written reports are: there are no time restraints on the audience, interpersonal skills are not important and the data can be referred to as needed.

Disadvantages are: there is no chance for immediate feedback, no way to clarify information and a heavy dependence on writing and reading skills.

Oral Reports

Reports given at board meetings, parent meetings and staff meetings must be presented orally. These are generally shorter than the written report and do not have as much detail. Oral reports tend to include specific sections of the report in which the particular audience is interested. Credibility and verbal skills of the presenter are important when giving oral reports.

An outline of the presentation would vary according to the audience. It could be based on the outline for the written report described above.

Advantages of oral reports include: immediate feedback, instant clarification of audience questions, no dependence on writing or reading skills and the possibility of good public relations.

The disadvantages are: there is a strong dependence on interpersonal and communication skills, there are time restraints on both the presenter and the audience and the amount of information presented is limited.

Table and Figure Displays

Table and figure displays should accompany both written and oral reports in most cases. A table is an arrangement of numbers, symbols and/or words usually presented as a matrix of columns and rows. A figure or graph is a system showing relationships between two or more things by using interconnecting dots, lines, bars or symbols.

Tables and figures simplify and clarify the messages being presented. They also consolidate and organize available information. Scattered information is difficult to understand and analyze; bringing it together from many viewpoints and organizing it in tables or figures makes data synthesis and analysis easier. If you have a lot of information to present, tables and figures can summarize it easily. Some rules to follow when using them include:

- Label tables and figures clearly.
- Describe them in the text or explain them orally.
- Use tables when addressing specialists and figures when talking to laypersons.

Timing

Just as each audience has its own information requirements it also has its own schedule requirements. Some participants need reports while the program is in process; others need only the final report. Common sense and feedback from participants will tell you when individuals and groups need specific information—it must be timely in order to be acted upon.

If you have not planned your reporting procedures, the chart on the following page may help you. It will help you outline your presentation of data, the methods you will use and the timelines for various audiences. Also included is a sample of this form.

PLANNING PRESENTATION OF RESULTS WORKSHEET

(Sample)

Evaluation Question	Audience	Analysis and Data to Provide	Format and Presentation Methods	Timelines/ Due Date
Do voting patterns on school-related issues differ for our school and non-community schools?	Community School Advisory Council and staff	Number and percent of YES votes for our school and other non-community schools.	Written table and oral summary at advisory council and staff meetings	Oct. 5—Advisory Council Meeting Oct. 6—Staff Meeting
To what extent do program objectives address identified community needs?	(Same as above)	Table showing needs assessment data in one column and corresponding program objectives in another column	Written table and oral summary at advisory council and staff meetings	Mar. 10—Advisory Council Meeting Mar. 12—Staff Meeting
Are community members satisfied with community school courses and instructors?	(Same as above)	List of courses with average ratings for course content and course instructors	Written table and oral summary at advisory council and staff meetings	Mar. 10—Advisory Council Meeting Mar. 12—Staff Meeting

PLANNING PRESENTATION OF RESULTS WORKSHEET

Evaluation Question	Audience	Analysis and Data to Provide	Format and Presentation Methods	Timelines/ Due Date

VOTING PATTERNS ON SCHOOL-RELATED ISSUES

One way of assessing the impact of community schools on community attitudes is to look at the voting patterns in school-related issues. These issues may take the form of property tax limitation measures where schools are largely financed by property taxes. Or they may be propositions to allocate funds for building new schools or adding new programs. Hopefully, precincts which are served by community schools would tend to vote in favor of schools to a greater extent than precincts which are not served by community schools.

The **evaluation question** of interest is, "Do voting patterns on school-related issues differ for community and non-community schools?"

In order to **collect data** on voting patterns, you will first need to select a sample of comparable, non-community schools. There are a number of factors to consider in choosing your comparison schools. First, you will want to select schools that are in similar or adjacent geographic areas to your community school(s). Next, you will want to match non-community schools to community schools as closely as possible on such factors as socioeconomic status, age of school and neighborhood, ethnic composition, student enrollment, type of school (elementary, middle, high), and student achievement.

Once you have selected your comparison schools you will need a school district map showing the boundaries of each community and non-community school attendance area in your sample. Take this map to the county Registrar of Voters office for comparison to the precinct maps. Write down the precinct numbers for each school attendance area. You will need to develop some rules-of-thumb for what to do about precincts that straddle school attendance boundaries. You may choose to eliminate all precincts that are not totally within the school boundaries, or you may decide to include precincts if at least 75%, for example, of the precinct is within the school attendance boundaries.

Once you have the list of precincts for each school attendance area you can look up the number of votes for and against the ballot measure for each precinct.

You are now ready for step three: **data summary and analysis.** Total the votes for each attendance area separately, and then combine all community schools together with all non-community schools together. Calculate the percentages of YES and NO votes for community schools versus non-community schools. The next page contains a sample data collection form for tabulating voting data.

You may wish to go beyond simple descriptive data and test whether or not the differences between community and non-community schools are statistically significant. To do this, you will calculate the Chi Square test for two independent samples. Procedures for doing this test can be found in many basic statistics books. Many programmable calculators and microcomputers have ready-made software packages for calculating common statistical tests such as Chi Square.

In addition to comparing community and non-community schools you may wish to compare community schools with county-wide or statewide data. If you decide to do a Chi Square analysis of these comparisons you will need to subtract your community school totals from the county and state totals before calculating Chi Square in order to keep the two samples independent of each other. In other words, the community school totals must be taken out of the county and state totals since they are included in those totals.

In **reporting your results** you may wish to provide a graph or a table such as the ones on the following pages. Notice that the table has been simplified to include number and percent of YES votes only. In this case, a YES vote was a vote in favor of schools. The total was included instead of the number of NO votes because the total is needed to calculate the percentages. If someone wanted to know the number of NO votes, that information could be easily derived from the information provided.

Sample Data Collection Form

Proposition _____

COMMUNITY SCHOOLS	Precinct #'s	# YES Votes	# NO Votes	TOTAL
School A				
School B				
School C				
Total for Community Schools				
Percentages of YES and NO votes				

NON-COMMUNITY SCHOOLS	Precinct #'s	# YES Votes	# NO Votes	TOTAL
School X				
School Y				
School Z				
Total for Non-Community Schools				
Percentages of YES and NO votes				

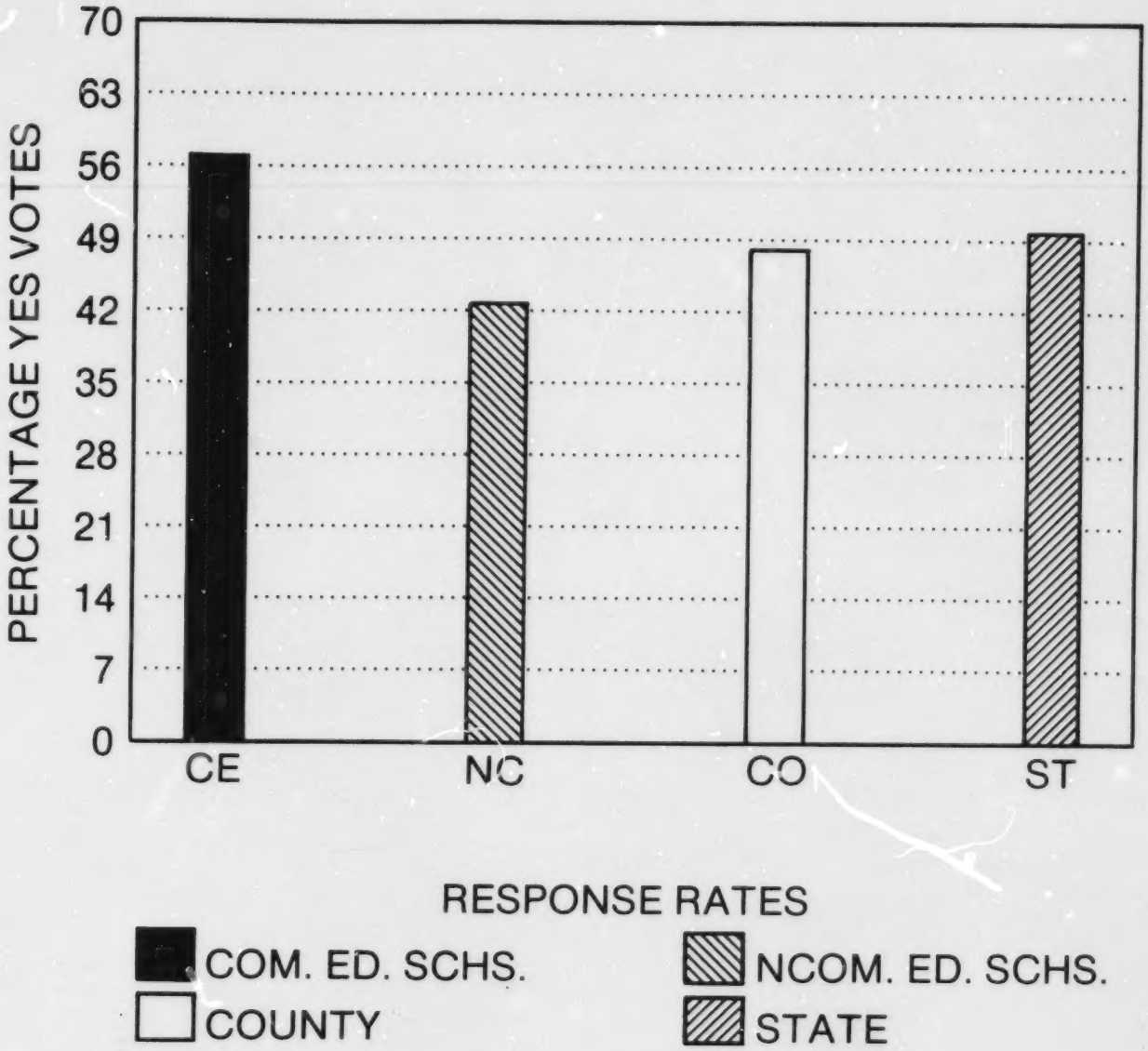
Table 1

Proposition 1 Ballot Results

(Sample)

Community School	# of YES Votes	Total Votes	Percent of YES Votes
A Washington	3036	5210	58
B Adams	175	355	49
C Jefferson	206	278	74
D Monroe	821	1280	64
E Coolidge	832	1748	48
Non-Community School			
F Roosevelt	1011	2157	47
G Lincoln	637	1293	49
H Truman	660	1409	47
I Eisenhower	639	1515	42
J Kennedy	4468	10,324	43
TOTAL Community School	5070	8871	57.2
TOTAL Non-Community School	7415	16,698	44.4
San Diego County	283, 061	584,909	48.4
State of California	3, 621,422	7,175, 922	50.5

PROPOSITION 1 RESULTS



In addition to reporting data in tables and/or graphs you need to discuss the results you obtained. What are possible reasons for any differences you found? Are the differences meaningful? What factors interfere with your making any definitive conclusions? What are the implications of your results?

You may wish to refer to the preceding chapter for additional hints on presenting your results.

A PLAN FOR CONDUCTING A PUBLIC OPINION POLL

The following procedure identifies steps to follow when conducting a telephone opinion poll in your community. This guide was developed by well-known pollster Dr. Oscar Kaplan, Economic Behavior Analysts, Inc., San Diego, California. The San Diego County Office of Education provided the resources and coordination for the development of this process which is presented in three parts:

1. Sampling and Sample Size
2. Principles of Item Construction
3. Instructions to Interviewers

PART I — SAMPLING AND SAMPLE SIZE

The textbook ideal of a perfect probability sample almost never is attained in practice. Respondent refusals, limitations of funds and time, and other factors usually make it impossible to complete interviews with all who have been identified as members of a probability sample. Nevertheless, long experience indicates that modified probability sampling, as described in the following pages, usually yields results sufficiently valid and reliable to be employed in decision making.

SAMPLE SIZE

Many factors must be considered in arriving at sample size. Among these are the amount of risk of error that can be tolerated, need for breakdown of the data into sub-universes, money available for the survey, etc. For a county-wide survey, with results to be released to the public and/or employed in the making of important decisions, the minimum number of interviews that should be completed is listed below. If the survey is being made for internal consumption only, and only to identify general trends, smaller samples may be sufficient and are also listed in the following chart.

RECOMMENDED SAMPLE SIZE

COMMUNITY SIZE	RECOMMENDED SAMPLE SIZE	
	Trends	Decision Making
Under 50,000	100	200 - 250
50,000 to 99,999	100 - 200	300 - 350
100,000 or over	200 - 250	400 - 500

Figure 1 on the following page shows that one of the factors to be considered in determining sample size is the way in which opinion divides. If opinion divides 50:50, a much larger sample is needed than if it divides 10:90. Figure 1 also shows that there are diminishing gains from increasing sample size. For example, in the 50:50 column, to reduce the range of error from plus or minus 5% to plus or minus 3.5%, one must double the sample size from 400 to 800.

DRAWING A SAMPLE OF THE GENERAL ADULT POPULATION

Since most persons 18 years of age or over are eligible to register to vote, for the purposes of the school surveys, all persons age 18 or older will be classified as adults. However, voter registration status will not be required for inclusion in the sample of the general population.

Figure 1

PROBABLE DEVIATION (PLUS OR MINUS) OF RESULTS DUE TO SIZE OF SAMPLE ONLY (Safety factor of 20 to 1)

Survey Result Is:	1% or 99%	5% or 95%	10% or 90%	15% or 85%	20% or 80%	25% or 75%	30% or 70%	35% or 65%	40% or 60%	45% or 55%	50%
Sample of: 25	4.0	8.7	12.0	14.3	16.0	17.3	18.3	19.1	19.6	19.8	20.0
50	2.8	6.2	8.5	10.1	11.4	12.3	13.0	13.5	13.9	14.1	14.2
75	2.3	5.0	6.9	8.2	9.2	10.0	10.5	11.0	11.3	11.4	11.5
100	2.0	4.4	6.0	7.1	8.0	8.7	9.2	9.5	9.8	9.9	10.0
150	1.6	3.6	4.9	5.9	6.6	7.1	7.5	7.8	8.0	8.1	8.2
200	1.4	3.1	4.3	5.1	5.7	6.1	6.5	6.8	7.0	7.0	7.1
250	1.2	2.7	3.8	4.5	5.0	5.5	5.8	6.0	6.2	6.2	6.3
300	1.1	2.5	3.5	4.1	4.6	5.0	5.3	5.5	5.7	5.8	5.8
400	.99	2.2	3.0	3.6	4.0	4.3	4.6	4.8	4.9	5.0	5.0
500	.89	2.0	2.7	3.2	3.6	3.9	4.1	4.3	4.4	4.5	4.5
600	.81	1.8	2.5	2.9	3.3	3.6	3.8	3.9	4.0	4.1	4.1
800	.69	1.5	2.1	2.5	2.8	3.0	3.2	3.3	3.4	3.5	3.5
1,000	.63	1.4	1.9	2.3	2.6	2.8	2.9	3.1	3.1	3.2	3.2
2,000	.44	.96	1.3	1.6	1.8	1.9	2.0	2.1	2.2	2.2	2.2
3,000	.36	.79	1.1	1.3	1.5	1.6	1.7	1.7	1.8	1.8	1.8
4,000	.31	.69	.95	1.1	1.3	1.4	1.4	1.5	1.5	1.6	1.6
5,000	.28	.62	.85	1.0	1.1	1.2	1.3	1.4	1.4	1.4	1.4
10,000	.20	.44	.60	.71	.80	.87	.92	.95	.98	.99	1.0
50,000	.08	.17	.24	.29	.32	.35	.37	.38	.39	.40	.40

Example: When size of sample is 500 and survey result comes out 25%, you may be reasonably sure (odds 20 to 1) that this result is no more than 3.9 off, plus or minus. Doubling the sample to 1,000 reduces this margin to 2.8

In order to reduce the range of error in half, you must quadruple the size of the sample. Thus, to decrease risk of error the sample size (and cost) increases very rapidly for limited gain.

All interviewing will be done by telephone. Since most households in most counties now have telephone service, telephone surveys involve all major elements in the population. Listed telephone numbers appear in your local telephone directories. Unlisted numbers are of two types: numbers that will be listed in the next editions of the directories and numbers that are unlisted by choice of subscribers. A method for reaching these unlisted numbers, known as Random Digit Dialing, will be decribed later. Since telephone directories now appear in annual cycles, usually the number of unlisted numbers is lowest at the beginning of the cycle.

The white pages bearing residential numbers in your local directory(ies) are the primary source for your telephone poll. The following is an example of how to select random phone numbers from the phone directory(ies) that represent the area being polled.

1. Once your sample size is determined you need to take the phone numbers from the phone directories in the same percentage as they represent — for example, for a sample of 400:

   Example #1: One county area with one phone directory serving that area: 100% of phone numbers will be drawn from that phone book (400 phone numbers).

   Example #2: One county area with two phone directories serving two sub areas: If both directories have the same number of white pages each serving 50% of the total area, then 50% of the phone numbers would be from each phone directory (or 200 phone numbers from each phone directory).

   Example #3: One county area with three phone directories serving three sub areas: If one directory has ½ the total numbers, 50% (200) of the phone numbers would be taken from that directory. If the second directory has ¼ of the total numbers, 25% (100) of the phone numbers would be taken from that directory. The third directory would have the remaining ¼ of numbers and 25% (100) would be taken from that phone directory.

SELECTION OF PHONE NUMBERS - EXAMPLE SAMPLE SIZE OF 248

The white pages bearing residential numbers in the local phone directory start on page 15 and end on page 1193, for a total of 1178 pages. You must obtain the sample of interviews from this

directory and you need to give every page an equal chance of inclusion in the sample insofar as possible. Dividing 1178 (total pages of phone numbers) by 284 (sample size) yields a "skip interval" of about 4.1. You pick a "random start" number from 1 to 4 (by pulling a number out of a hat or by use of a Table of Random Numbers) and then apply the "skip interval." For example, suppose the "random start" number you pull is 3. The pages you will use will be 17, 21, 25, 29, etc. reflecting the "skip interval" of 4.

Similarly, you must obtain 116 interviews and a second county directory whose white pages extend from page 9 to page 448, or 439 pages. The "skip interval" is 3.8. If you apply a "skip interval" of 4, you will run out of pages, but you may go ahead anyway with this "skip interval" and complete your list of sample pages by randomly opening the telephone book to various pages, retaining those pages not previously claimed for the sample.

After pages in the telephone books to be used in the sample have been determined the column on the page to be used is established by some random procedure. Then a number from 1 to 9 may be drawn randomly to identify the first residential number to be called. Suppose that column 1 (the first column on the left side of the page) is drawn, and then a number 6 is drawn. Count from the top of column 1 down to the sixth listed residential number. Add a digit to the last number in order to accomplish Random Digit Dialing. For example, if the sixth residential number in column 1 is 467-8765 change it to 467-8766. If this is an inoperative number or needs to be replaced for some other reason, go to the seventh residential number in column 1, repeating the procedure previously used. If you run out of residential numbers in column 1 you may use any of the other columns on the page, but following the same procedure as in column 1.

DRAWING A SAMPLE OF THE VOTER POPULATION

The local Registrar of Voters maintains a complete listing of all registered voters in each county. There are many different ways in which random samples of registered voters may be drawn. Ideally, one should pick every ninth name to reach the desired sample size, employing the "random start" and "skip interval" procedures. A simpler, though somewhat less exact method, would be to randomly select precints and then randomly select within the precinct

lists. For example, suppose that there are 3,211 precincts in your county and you wish to interview 400 voters. You could randomly select 100 precincts and complete 4 interviews in each precinct. The "skip interval" would be 32 and the "random start" would be a number from 1 to 11 randomly selected.

CALL-BACKS

Full implementation of probability sampling requires call-backs when respondents cannot be reached on the initial call. Call-backs are costly and delay the completion of a survey. If call-backs are included in the design, it is recommended that no more than three attempts be made to reach a number included in the sample. After three callbacks call the next number in the sequence.

MALE/FEMALE RESPONDENTS

An effort should be made to obtain at least 40% of the interviews with adult males.

HOURS OF POLLING

Telephoning should be restricted to the hours of 5:00 to 9:00 p.m. Monday through Friday, 9:00 a.m. to 9:00 p.m. on Saturdays, and 10:00 a.m. to 9:00 p.m. on Sundays. Deviation from these hours may lead to an underinclusion of employed persons.

PART II — PRINCIPLES OF ITEM CONSTRUCTION

1. Use simple words whenever they are adequate.
2. Whenever possible use simple sentences. Keep questions as brief as possible. Many respondents are aged and have memory problems. If the question is put in the form of a long paragraph the respondent may have forgotten the first sentences in the paragraph after hearing the last one.
3. Defend the ego of your respondent insofar as you can. For example, a long list of factual questions which the respondent is unable to answer may alienate the respondent. If such questions must be asked it is best that they not be bunched. A lead in, such as "Do you

happen to know...?" may make it easier for a respondent to acknowledge ignorance.

4. Generally speaking, it is good practice to avoid emotionally-loaded words, such as fascist, communist, Un-American, leftist, rightist, etc.
5. If possible, the first question in the sequence should be easy to answer, non-threatening, and consistent with the topic of the survey as stated in the introduction. IT IS VERY IMPORTANT THAT THE RESPONDENT ANSWER THE FIRST QUESTION. It may be worthwhile to use a first question that is not of major interest to the sponsor in order to involve the respondent in the survey. Provide an introduction that leads directly into the first question. Example: "Hello! My name is_____. I'm calling for_____. We'd like to know how people feel about the public schools. For example: Students are often given the grades A, B, C, D....'
6. A cooperative respondent must be able to answer the question. For example, if a person drinks cola drinks sporadically but in quantity and is asked to tell how many cans/bottles were consumed during the last twelve months it would be impossible for him to give an accurate answer.
7. Use words and phrases as precisely as possible. "Thirty days" is better than "one month," "twelve months" is better than "one year."
8. Demographic questions are usually placed at the end of the questionnnaire.
9. Generally, it is best to locate an income question, if one is used, at the very end of the interview.
10. Avoid words and phrases which mean different things to different respondents. For example, the respondent may be asked to choose between "old-fashioned" women and "present-day" women. What is "old-fashioned?" What is "present-day?"
11. Do not use compound questions unless you are prepared to follow up on them. For example, the question might be: "Did you eat ice cream or candy yesterday?" If the answer is "yes" it still is unclear whether one or the other, or both, were consumed. It would be better to ask two questions: "Did you eat ice cream yesterday?" "Did you eat candy yesterday?"
12. In item construction, the choice often is between dealing with broad or specific attitudes. For example, one could ask: "In general, do you favor or oppose high protective tariffs?" "Do you favor or oppose a tariff of $300 per car on automobiles manufactured outside the United States?" The latter question obviously yields much more specific and less ambiguous information than the former one.

13. "Straight-jacket" questions should be avoided when possible. A "straight-jacket" question does not include all major alternatives open to the respondent. For example, with regard to Central America, the respondent might be offered four alternatives: (a) full-scale involvement of U.S. troops in El Salvador; (b) removal of all U.S. uniformed personnel from El Salvador; (c) air support only for El Salvador government troops; (d) economic aid only for the government of El Salvador. Obviously, there are numerous combinations and permutations of these alternatives which are possible, as well as many other alternatives. Even when respondents are permitted to express their views under an "other answers" category few will do so.
14. The sequence of questions is important. For example, the sequence of the following questions probably would markedly influence the results: "Do you favor or oppose elimination of TV commercials?" "Would you be willing to pay $100 a year for each TV set in your home in order to eliminate TV commercials?"
15. Although experienced interviewers may be able to hold respondents on the telephone for more than half an hour, it is best to keep interviews to 15-20 minutes in length if possible. If shorter interviews provide the needed information so much the better.
16. Insofar as possible, instructions to interviewers dealing with specific questions should appear on the questionnaire. When an interview is in progress there is no time to look up instructions.
17. Questionnaires should be pre-tested before being finalized and printed. Even five or ten interviews often will reveal marked deficiencies or items that need revision. Remember to pretest the revision.
18. Questionnaires should be easy for the interviewer to complete. A telephone interview is stressful and recording of information must be done quickly and accurately. Checking and underlining procedures facilitate the work of interviewers.
19. Decide at the beginning of the questionnaire construction process on the information that you need to achieve your objectives. Work out in advance how you will manipulate the data after it is collected. Ask yourself before you finalize the questionnaire: Is this item really necessary? Is it worth the time and money that it will cost? Much marginal, and sometimes useless, information is collected in surveys.

PART III — INSTRUCTIONS TO INTERVIEWERS

1. Before starting the survey familiarize yourself with the sampling procedures and with the questionnaire. Try the questionnaire out on several people not in the sample before starting your assignment in the survey.
2. A sample introduction appears at the top of the questionnaire. You may want to put it in your own words, but do not differ from it in any substantial way. BE FRIENDLY, COURTEOUS, CONFIDENT. If you are unsure of yourself the respondent will pick it up. Go from the introduction immediately to the first question. If the respondent answers the first question the probability is high that the respondent will complete the questionnaire. Do not apologize for making the interview, or for taking the respondent's time; the survey serves an important public purpose. Do not ask if the respondent wishes to participate in the survey - the answer frequently is "no." Do not lie to a respondent about the length of time required to complete the interview, but it is fair to say that the length of time varies as a range, e.g., 7-12 minutes. Do not discuss the length of the interview, purpose, etc. unless you are asked.
3. If the issue comes up, or if you are questioned by the respondent, you may state that the respondent's anonymity will be fully protected and that answers will be used for statistical purposes only. You may encounter persons you know or of whom you have heard. It is unethical and unprofessional to discuss the answers of respondents, or details of the survey project, with persons who are not involved in it.
4. No matter what may be said to you, respond courteously. No one is obligated to participate in the interview. Do your best to win participation of the respondent in the survey; terminate the interview if you become convinced this cannot be accomplished. Even if you are refused, terminate the interview in a friendly way, saying "thank you anyway." If you catch the respondent at a bad time, and this is the basis for the refusal, you may ask to call back at a more favorable time set by the respondent.
5. Read the questions EXACTLY as they appear on the survey form. Do not deviate from the survey instructions unless authorized to do so by your supervisor. Based on your experience, it is possible that you may be able to improve the wording of the questions and/or the instructions. Nevertheless, it is critical that you conform to the wording of the questions and instructions. If each interviewer independently rewords questions and changes instructions the results would be of unknown validity. If you find problems in the questionnaire and/or instructions inform your supervisor who will decide on the action to take.

6. You will be dealing with random samples of the general population and you may encounter psychotics, drunks, seniles, etc. If it is clear that the respondent is unable to engage in the interview in a meaningful way ask to speak to someone else in the household if permitted by the sampling plan, or terminate the interview.

7. You are not permitted to take sides or offer facts or opinions unless indicated on the questionnaire. Your job is to impartially record the respondent's views. In no way are you to indicate approval or disapproval of a respondent's views. No matter how offensive to you a respondent's opinions may be you are not to show this by voice or words. Your job is to be neutral but friendly. If the respondent seeks information, on the authorization of your supervisor, you may provide it or tell the respondent where it may be obtained. Respondents are sensitive and may, even over the telephone, gauge the interviewer's position unless a special effort is made to mask it. There is truth in the statement that "we chatter with our finger tips."

8. A major problem in interviewing is in dealing with respondents who give long-winded answers. Most of the questions that you will be asking are "structured" and can be answered very briefly, sometimes by "yes" or "no," or with a few words. In such questions, we are not interested in why the respondent has taken a particular stand. Sometimes it is obvious that the respondent has not understood a question. If this is the case, you may repeat the question as tactfully as possible. Respondents often give the requested answer and then ramble on, sometimes irrelevantly. The problem of extended answers is particularly acute with "open end" questions in which the number of answers is not limited; such questions often are of the "why" type. The task of the interviewer is to move the respondent to the next question in the sequence immediately after the desired information has been obtained. This must be done without offending or alienating the respondent. Sometimes it is necessary to let a respondent ramble a little in order to maintain rapport. One technique for advancing to the next question is to say: "That's interesting. Now what do you think of this next question?"

9. Open-end questions are very valuable if properly completed. Many pollsters say that the way to identify good interviewers is by studying the way they handle open-end questions. The respondent must be fully probed. "Why do you favor merit pay for teachers?" "Are there any other reasons why you favor merit pay?" "Can you think of any other reasons for using a merit pay system?" Do not accept uninformative answers, such as, "It will improve our schools." Ask: "How will it improve our schools?" Faithfully record the respondent's answers as fully as possible, using the questionnaire margins or back of

page, if necessary. In some cases you may want to make brief notes and then write a paragraph or two after the interview is completed. Remember that the person doing the coding of the free-answer questions must depend entirely on what you have written. In some questionnaires major response categories are anticipated and provided for in open questions. For example, if the question is, "What is the most important problem in American public education?" one could anticipate that some would say "inadequate funding." This answer could be listed and given a number along with listings and numbers for other anticipated answers. Space would be provided to write in answers that were not anticipated. In a free-answer question, with anticipated answer categories, it is stated emphatically on the questionnaire: DO NOT READ THE ALTERNATIVES. In order to do a good job with a question of this kind, you should know the kinds of answers that qualify for the various categories and the kinds of answers that must be reported in the blank spaces provided for other replies

10. Sometimes unusual and significant things happen in the course of an interview and they should be reported to your supervisor. For example, a respondent may insist on knowing the name of the person who is directing the survey, or why the survey is being done, or who is paying for it. If the matter appears urgent take it up at once with your supervisor. Or, if it does not appear urgent, promise that a call will be made at a later time, recording this pledge on the questionnaire and in a special note. The switchboard at County Schools, _____, has been notified that the survey is in progress and can authenticate its sponsorship.
11. As one nears the end of the interview, and/or if the respondent's patience seems to be strained, indicate that the interview is nearly over and that it will be completed in a few minutes.
12. After asking the last question, quickly check the questionnaire to see if you have left out any questions. Make an even more thorough check after you hang up. If you have omitted a question, call back immediately.
13. Thank the respondent warmly at the end of the interview.

ATTENDANCE/ABSENTEEISM PATTERNS

Another way of assessing the impact of community schools is to analyze attendance patterns. One might expect that the parental support generated through the community school activities would lead to lower absenteeism at community schools than at non-community schools. The **evaluation question** of interest is, "Does student attendance at community schools differ from student attendance at comparable non-community schools?"

In order to **collect data** on student attendance you will first need to select a sample of comparable, non-community schools. There are a number of factors to consider in choosing your comparison schools. First, you will want to select schools that are in similar or adjacent geographic areas to your community schools. Next, you will want to match non-community schools to community schools as closely aa possible on such factors as socioeconomic status, age of school and neighborhood, ethnic composition, student enrollment, type of school (elementary, middle, high), and student achievement.

Once you have selected your comparison schools you will need to obtain enrollment figures and number of unexcused absences for all schools. You may decide to look at data from more than one year, particularly if you believe that attendance has improved gradually over the course of several years of operation as a community school. The sample data collection form on the next page might be helpful.

In **summarizing and analyzing** your data you may wish to go beyond simple descriptive data (average absence rates) and test whether or not the differences between community and non-community schools are statistically significant. If you have at least 30 schools in each group you could do a t-test of the difference in absence rates between community and non-community schools. Since you will probably have fewer schools you will have to use a nonparametric test called the Randomization Test for Two Independent Samples. The calculation procedures for this test can be found in *Nonparametric Statistics* by Sidney Siegel.

To report your results you may wish to provide a table, such as the one on the next page, or a graph. Tables and graphs should be referred to in the text of your report. In addition, you should discuss the results you obtained. What are the possible reasons for any differences you

found? Are the differences really meaningful? What factors interfere with your making any definitive conclusions? What are the implications of your results?

You may wish to refer to the chapter on the evaluation process for additional hints on presenting your results.

Table 2

(Sample)

Absenteeism at Community and Non-Community Schools

COMMUNITY SCHOOLS

School Name	Year	Days Enrolled	Unexcused Absences	Absence Rate (Col.4/Col.3)
A Cherry Hill	79-80	58,764	1,036	1.8%
B Oak Knoll	79-80	65,073	1,147	1.8%
C Pinetop	79-80	72,098	2,039	2.8%
Community School Totals		195,935	4,222	2.2%

NON-COMMUNITY SCHOOLS

School Name	Year	Days Enrolled	Unexcused Absences	Absence Rate (Col.4/Col.3)
D Riverdale	79-80	71,243	2,934	4.1%
E Bayside	79-80	64,875	2,722	4.2%
F Lakeview	79-80	76,977	3,096	4.0%
Non-Community School Totals		231,095	8,752	4.1%

Attendance Data Collection Form

COMMUNITY SCHOOLS

School Name	Year	Days Enrolled	Unexcused Absences	Absence Rate (Col.4/Col.3)
A Cherry Hill	79-80	58,764	1,036	1.8%
B Oak Knoll	79-80	65,073	1,147	1.8%
C Pinetop	79-80	72,098	2,039	2.8%
Community School Totals		195,935	4,222	2.2%

NON-COMMUNITY SCHOOLS

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F Lakeview	79-80	76,977	3,096	4.0%
Non-Community School Totals		231,095	8,752	4.1%

NOTE: This form may need to be modified to reflect differences in the way attendance data are collected in different districts.

SCHOOL VANDALISM

The frequency and types of vandalism, as well as the total dollar cost to repair or replace school facilities and equipment, is another way of assessing the impact of community schools on the community. Presumably, schools which have opened themselves to the community for social, cultural, and recreational activities would have fewer incidences of vandalism than schools which have not.

The evaluation question of interest is, "Does the rate and extent of vandalism differ for community schools and comparable non-community schools?"

In order to collect data on vandalism you will first need to select a sample of comparable, non-community schools. There are a number of factors to consider in choosing your comparison schools. First, you will want to select schools that are in similar or adjacent geograhhic areas to your community schools. Next, you will want to match non-community schools to community schools as closely as possible on such factors as socioeconomic status, age of school and neighborhood, ethnic composition, student enrollment, type of school (elementary, middle, high), and student achievement.

Once you have selected your comparison schools you will need to collect vandalism information about each school. Since districts vary widely in the type of vandalism information they collect you will be limited to whatever information is available. You may wish to break out the total number of incidents into categories such as building interior, building exterior, school grounds, and theft. You can even be specific about the location of the vandalism, such as cafeteria, restrooms, classrooms, auditorium, etc., or the type of the vandalism, such as spray paint, broken windows, fire, etc. The more categories you have, however, the more complicated it will be to make comparisons across schools. The form on the following page is a simple way to collect vandalism information.

Table 3

(Sample)

Vandalism

COMMUNITY SCHOOLS

School Name	Year	# of Incidents	Repair/Replace Costs
Oak	1982-83	5	$ 312
Maple	1982-83	7	367
Pine	1982-83	12	541
Cedar	1982-83	6	406
Community School Totals		30	$1,626
Average Per School		7.5	406.50

NON-COMMUNITY SCHOOLS

School Name	Year	# of Incidents	Repair/Replace Costs
Walnut	1982-83	6	$ 483
Birch	1982-83	18	1,230
Dogwood	1982-83	11	790
Orange	1982-83	9	701
Non-Community School Totals		44	$3,204
Average Per School		11.0	801.00

Sample Data Collection Form

Vandalism

COMMUNITY SCHOOLS

School Name	Year	# of Incidents	Repair/Replace Costs
Oak	1982-83	5	$ 312
Maple	1982-83	7	367
Pine	1982-83	12	541
Cedar	1982-83	6	406
Community School Totals		30	$1,626
Average Per School		7.5	406.50

NON-COMMUNITY SCHOOLS

School Name	Year	# of Incidents	Repair/Replace Costs
Walnut	1982-83	6	$ 483
Birch	1982-83	18	1,230
Dogwood	1982-83	11	790
Orange	1982-83	9	701
Non-Community School Totals		44	$3,204
Average Per School		11.0	801.00

NOTE: This form may need to be modified to reflect differences in the way vandalism data are collected in different districts.

Data summary and analysis will probably consist of simple descriptive data such as that collected on the preceding page. However, you may wish to go beyond simple descriptive data (average number of incidences or average cost) and test whether or not the differences between community and non-community schools are statistically significant. If you have at least 30 schools in each group you could do a t-test of the difference in vandalism incidences or repair costs between community and non-community schools. Since you will probably have fewer schools you will have to use a nonparametric test called the Randomization Test for Two Independent Samples. The calculation procedures for this test can be found in *Nonparametric Statistics* by Sidney Siegel.

To report your results you may wish to provide a table or a graph. Tables and graphs should be referred to in the text of your report. In addition, you should discuss the results you obtained. What are the possible reasons for any differences you found? Are the differences really meaningful? What factors interfere with your making any definitive conclusions? What are the implications of your results?

You may wish to refer to the chapter on the evaluation process for additional hints on presenting your results.

OTHER IMPACT DATA

The previous chapters have discussed using voting, public opinion, attendance and vandalism data to assess the impact of the community school on the community itself. You may think of other methods or variables for assessing the impact of your community school. The key to deciding whether or not the community school has had an impact on a community variable lies in the question, "Could something else have just as easily caused the result we found?" For example, suppose you found that student absenteeism declined in several of your community schools after they became community schools. Before you can attribute the change to the community school influence you would have to check to see whether or not attendance policies had changed in those schools at about the same time. A policy of calling parents when students are absent from school would be more likely to improve absence rates than the implementation of a community school program by itself. Often, such competing explanations for changes can be ruled out through the use of comparison schools.

Student Achievement

A variable that is frequently mentioned when examining the impact of community schools is student achievement. Before changes in achievement patterns could be attributed to the community school program one would have to rule out changes in personnel, curriculum, homework, tests, etc. as competing reasons for the change. Before you can hypothesize that the community school has had an impact on some variable you must have some logical explanation of the connection between the community school and that variable. If part of the community school program is an extensive afterschool tutoring project using community volunteers one might reasonably expect there to be some impact on student achievement. Or, perhaps, the community school program has provided skill development packets for parents to use at home with their children. This, too, might have some impact on student achievement. However, if the community school program consists largely of social, cultural, and recreational opportunities, it is unlikely that the goodwill generated by such a program would have a real impact on student achievement.

Let's assume your community school program does have an element specifically directed toward improving student achievement. How would you collect and analyze data to answer the question, "What impact has the community school program had on student achievement?"

There are several ways to address this question. Within a single school, you could take a random sample of students who were exposed to the special program (e.g., after-school tutoring) and compare their grades or test scores with a random sample of students who did not participate in the special program. However, there may be other differences between these two groups, other than exposure to after-school tutoring, which might account for achievement differences. Perhaps the students who stayed after school were more motivated to achieve and would have performed better on tests and classwork than the non-tutored students anyway. Or perhaps the non-tutored students weren't having as many difficulties as the tutored students, so their achievement may be higher than the tutored students in spite of the extra help received by the latter group.

It is probably inadvisable to compare overall levels of achievement between community and non-community schools because there are so many variables or differences between schools that could cause achievement differences, other than the fact of being a community school. It is virtually impossible to uncover cause-effect relationships in school programs because we cannot control all variables that impinge on a program. Thus, it is advisable to be cautious in planning impact evaluation studies and in interpreting results.